

TRANSMITTAL OF APPEAL BRIEFDocket No.
FLH-11102/29

In re Application of: Mark Falahee

Application No. 10/805,900-Conf. #1949	Filing Date March 22, 2004	Examiner M. C. Hoffman	Group Art Unit 3733
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Invention: POSTERIOR SPINAL RECONSTRUCTION SYSTEM

TO THE COMMISSIONER OF PATENTS:Transmitted herewith is the Appeal Brief in this application, with respect to the Notice of Appeal
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**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BOARD OF PATENT APPEALS AND INTERFERENCES**

In re application of: Falahee

Conf. No.: 1949

Serial No.: 10/805,900

Group No.: 3733

Filed: March 22, 2004

Examiner: Mary Hoffman

For: POSTERIOR SPINAL RECONSTRUCTION SYSTEM

APPELLANTS' BRIEF UNDER 37 CFR §41.37

Mail Stop Appeal Brief
Commissioner for Patents
PO Box 1450
Alexandria, VA 22313-1450

Dear Sir:

I. Real Party in Interest

The real party and interest in this case is Medical Designs, LLC, by assignment.

II. Related Appeals and Interferences

There are no appeals or interferences which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

III. Status of Claims

The present application was filed with 2 claims. Claims 3-15 were added by amendment in September 2006. Claims 1-15 are pending, rejected and under appeal. Claims 1 and 11 are the independent claims.

IV. Status of Amendments Filed Subsequent to Final Rejection

No after-final amendments have been filed.

V. Summary of Claimed Subject Matter

Independent claim 1 resides in dynamic spinal reconstruction apparatus that facilitates a limited degree of flexion, extension, and lateral bending. The system comprises a superior facet complex including a plate 102 having an upper portion, a lower portion, and a vertical midline, with the upper portion being adapted for fixation to an upper vertebral body. A pair of inferior gliding arms 104, 106 extend downwardly from the lower portion of the plate on respective sides of the midline, each gliding arm having a longitudinal axis, an upper end with a first coupling to the superior facet complex, and a lower end with a second coupling to a lower vertebral body. At least the first coupling provides a limited degree of axial movement of each gliding arm to facilitate flexion, extension, and lateral bending. (Specification, page 3, line 12 to page 4, line 25; Figures 5, 6 and 7).

Independent claim 11 resides in dynamic spinal reconstruction apparatus that facilitates a limited degree of flexion, extension, and lateral bending. The system comprises a superior facet complex including a plate 102 having an upper portion, a lower portion, and a vertical midline, the upper portion being adapted for fixation to an upper vertebral body using pedicle screws. A pair of inferior gliding arms 104, 106 extend downwardly from the lower portion of the plate on respective sides of the midline at outward angles. Each gliding arm has a longitudinal axis, an upper end with a first coupling to the superior facet complex, and a lower end with a second coupling to a lower vertebral body using pedicle screws. Both the first and second couplings providing a limited degree of axial movement of each gliding arm to facilitate flexion, extension, and lateral bending. (Specification, page 3, line 12 to page 4, line 25; Figures 5, 6 and 7).

VI. Grounds of Objection/Rejection To Be Reviewed On Appeal

1. The rejection of claims 1-3, 6 and 7 under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 5,092,893 to Smith.
2. The rejection of claim 4 under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 5,092,893 to Smith.
3. The rejection of claim 5 under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 5,092,893 to Smith.

4. The rejection of claim 8 under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 5,092,893 to Smith.

5. The rejection of claim 9 under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 5,092,893 to Smith.

6. The rejection of claim 10 under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 5,092,893 to Smith.

7. The rejection of claims 11 and 12 under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 5,092,893 to Smith.

8. The rejection of claim 13 under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 5,092,893 to Smith.

9. The rejection of claim 14 under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 5,092,893 to Smith.

10. The rejection of claim 15 under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 5,092,893 to Smith.

VII. Argument

1. Claims 1-3, 6 and 7, wherein claims 2, 3, 6 and 7 stand/fall with claim 1

Among other limitations, claim 1 includes the limitations of a pair of gliding arms, each having a longitudinal axis, and an upper end with a first coupling that provides a limited degree of axial movement. In other words, due to the structure of the coupling at the upper ends of the gliding arms, each can move back and forth somewhat along its length. To help visualize this, Figure 1 of Appellant's specification is reproduced below:

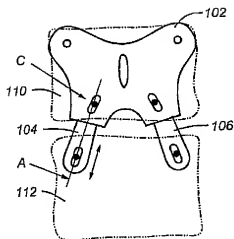
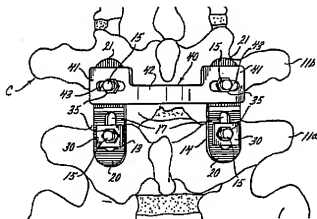


Fig - 1

The gliding arms are shown at 104 and 106. The axis of gliding arm 104 is shown at "A." The coupling at the upper end of gliding arm 104 is indicated at "C." Due to the structure of this coupling, the gliding arm is able to move up and down as shown by the 2-headed arrow. This same is true for gliding arm 106.

Claim 1 stands rejected under 35 U.S.C. § 102(b) over U.S. Patent No. 5,092,893 to Smith. A portion of Figure 1 of Smith is shown below:



The Examiner calls the implant plates 13, 14 "gliding arms." The coupling at the upper end of implant plate 13 includes stud 15 through horizontal slot 43 and lock nut 35. Even when the lock nut is loosened, the structure of Smith does not allow for any axial movement. Indeed, the structure of Smith is intended for complete immobilization. "The present invention comprises a vertebra structural

implant for rigidly connecting vertebral bodies in axial and lateral directions in the spinal column when bone graft is located between the vertebral bodies.” (‘893 Patent, 2:5-8)

Anticipation may be established only when a single prior art reference discloses, expressly or under principles of inherency, each and every element of a claimed invention. RCA Corp. v. Applied Digital Data Systems, 730 F.2d 1440, 1444, 221 USPQ 385, 388 (Fed. Cir. 1984). Moreover, anticipation requires the presence of all elements of a claimed invention as arranged in the claim, such that a disclosure “that ‘almost’ meets that standard does not ‘anticipate’.” Connell v. Sears, Roebuck Co., 722 F.2d 1542, 1548, 220 USPQ 193, 198 (Fed. Cir. 1983). Since Smith neither teaches nor suggests “a pair of gliding arms, each having a longitudinal axis, and an upper end with a first coupling that provides a limited degree of axial movement,” *prima facie* anticipation has not been established.

2. Claim 4.

Claim 4 stands rejected under 35 U.S.C. §102(b) over U.S. Patent No. 5,092,893 to Smith. Smith does not teach or suggest a first coupling including “a slot on the plate and a pin on the gliding arm that slides along the slot.” Accordingly, *prima facie* anticipation has not been established.

3. Claim 5.

Claim 5 stands rejected under 35 U.S.C. §102(b) over U.S. Patent No. 5,092,893 to Smith. While Smith does disclose implant plates, each with an adjustable lower coupling, neither provides a limited degree of axial movement. Rather, the structure of Smith is intended for complete immobilization. Accordingly, *prima facie* anticipation has not been established.

4. Claim 8.

Claim 8 stands rejected under 35 U.S.C. §102(b) over U.S. Patent No. 5,092,893 to Smith. Smith does not teach or suggest the upper end of each gliding arm being received by a lower sleeve on either side of the plate. Accordingly, *prima facie* anticipation has not been established.

5. Claim 9.

Claim 9 stands rejected under 35 U.S.C. §102(b) over U.S. Patent No. 5,092,893 to Smith. Smith does not teach or suggest each gliding arm extends downwardly and away from the midline at an

angle. Rather, the implant plates of 13, 14 are at all time parallel to the midline. Accordingly, *prima facie* anticipation has not been established.

6. Claim 10.

Claim 10 stands rejected under 35 U.S.C. §102(b) over U.S. Patent No. 5,092,893 to Smith. Smith does not teach or suggest a superior facet complex further including an outer surface with soft tissue attachment points, despite the Examiner's argument that "any point can be used." (Final OA, p.3) Accordingly, *prima facie* anticipation has not been established.

7. Claims 11 and 12, where claim 12 stands/falls with claim 11.

Claim 11 stands rejected under 35 U.S.C. §102(b) over U.S. Patent No. 5,092,893 to Smith. Smith does not teach or suggest a pair of inferior gliding arms extending downwardly from the lower portion of a plate on respective sides of the midline at outward angles. Nor does Smith teach or suggest first and second couplings that both provide a limited degree of axial movement. Accordingly, *prima facie* anticipation has not been established.

8. Claim 13.

Claim 13 stands rejected under 35 U.S.C. §102(b) over U.S. Patent No. 5,092,893 to Smith. Claim 13 adds to claim 11 that the upper end of each gliding arm is received by a lower sleeve on either side of the plate. Smith does not teach or suggest such a limitation. Accordingly, *prima facie* anticipation has not been established.

9. Claim 14.

Claim 14 stands rejected under 35 U.S.C. §102(b) over U.S. Patent No. 5,092,893 to Smith. Smith does not teach or suggest that the superior facet complex further includes an outer surface with soft tissue attachment points. Accordingly, *prima facie* anticipation has not been established.

10. Claim 15.

Claim 15 stands rejected under 35 U.S.C. §102(b) over U.S. Patent No. 5,092,893 to Smith.

Smith does not teach or suggest an upper superior facet complex and a lower superior facet complex, both with gliding arms. Accordingly, *prima facie* anticipation has not been established.

Conclusion

In conclusion, for the arguments of record and the reasons set forth above, all pending claims of the subject application continue to be in condition for allowance and Appellant seeks the Board's concurrence at this time.

Respectfully submitted,

By: _____

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Date: June 18, 2007

APPENDIX A**CLAIMS ON APPEAL**

1. Spinal reconstruction apparatus, comprising:

a superior facet complex including a plate having an upper portion, a lower portion, and a vertical midline, with the upper portion being adapted for fixation to an upper vertebral body;

a pair of inferior gliding arms extending downwardly from the lower portion of the plate on respective sides of the midline, each gliding arm having a longitudinal axis, an upper end with a first coupling to the superior facet complex, and a lower end with a second coupling to a lower vertebral body;

at least the first coupling providing a limited degree of axial movement of each gliding arm to facilitate flexion, extension, and lateral bending.

2. The spinal reconstruction apparatus of claim 1, wherein the upper portion of the plate utilizes pedicle fixation.

3. The spinal reconstruction apparatus of claim 1, wherein the lower end of each gliding arm utilizes pedicle fixation.

4. The spinal reconstruction apparatus of claim 1, wherein the first coupling includes a slot on the plate and a pin on the gliding arm that slides along the slot.

5. The spinal reconstruction apparatus of claim 1, wherein the second coupling provides a limited degree of axial movement of each gliding arm.

6. The spinal reconstruction apparatus of claim 1, wherein the second coupling includes a slot on the gliding arm and a pedicle screw with a pin or ball that engages with the slot.

7. The spinal reconstruction apparatus of claim 1, wherein the first coupling provides a

limited degree of pivoting from side to side.

8. The spinal reconstruction apparatus of claim 1, wherein the upper end of each gliding arm is received by a lower sleeve on either side of the plate.

9. The spinal reconstruction apparatus of claim 1, wherein each gliding arm extends downwardly and away from the midline at an angle.

10. The spinal reconstruction apparatus of claim 1, wherein the superior facet complex further includes an outer surface with soft tissue attachment points.

11. Spinal reconstruction apparatus, comprising:

a superior facet complex including a plate having an upper portion, a lower portion, and a vertical midline, the upper portion being adapted for fixation to an upper vertebral body using pedicle screws;

a pair of inferior gliding arms extending downwardly from the lower portion of the plate on respective sides of the midline at outward angles, each gliding arm having a longitudinal axis, an upper end with a first coupling to the superior facet complex, and a lower end with a second coupling to a lower vertebral body using pedicle screws;

both the first and second couplings providing a limited degree of axial movement of each gliding arm to facilitate flexion, extension, and lateral bending.

12. The spinal reconstruction apparatus of claim 11, wherein the first coupling further provides a limited degree of pivoting from side to side.

13. The spinal reconstruction apparatus of claim 11, wherein the upper end of each gliding arm is received by a lower sleeve on either side of the plate.

14. The spinal reconstruction apparatus of claim 11, wherein the superior facet complex

further includes an outer surface with soft tissue attachment points.

15. The spinal reconstruction apparatus of claim 11, further including:
an upper superior facet complex and a lower superior facet complex, both with gliding arms; and
wherein the lower ends of the gliding arms associated with the upper superior facet complex
attach to the upper portion of the lower superior facet complex using pedicle screws,
thereby facilitating a limited degree of flexion, extension, and lateral bending across multiple
spinal levels.

APPENDIX B

EVIDENCE

None.

APPENDIX C

RELATED PROCEEDINGS

None.